Chemistry 108 – Active Learning Class (ALC) for Introduction to General Chemistry
Course 21942, Section 80, Lecture T, Th, & F 8:30 am – 9:40 am, Room WH 160A
Laboratory for CHE108 in Room NSM C-315 (Please check your days and times)

Instructor: Dr. Kenneth R. Rodriguez
Office: NSM C-305
Phone: (310)243-3419 my office or (310)243-3376, Chemistry Office
Email: krodriguez@csudh.edu (save this email address)
Office Hours: TTh 4:00 pm – 5:00 pm in NSM C-305
(You may also schedule an appointment to meet in my office.)

Course Description:
Chemistry 108 is a 5 unit introductory chemistry class. It includes topics of measurements,
units, unit conversion, scientific notation, chemical stoichiometry, mole concept, structure of
atoms and molecules, gases, liquids and solids, with an emphasis on the mathematical skills
necessary to be prepared for Chemistry 110. This section will be taught in Team Base
Learning style which emphasizes on students' critical reason skill and team work training.
Other than these two skills, upon completion of Chemistry 108, students will be able to:

1. Select and apply fundamental principles of chemistry to problem solving.
2. Describe scientific method as applied to chemistry.
3. Understand the principles of measurement, units, scientific notation, and significant
   figures.
4. Describe and distinguish physical properties and chemical properties.
5. Understand the subatomic structure of an atom.
6. Name and identify inorganic chemical compounds.
7. Describe simple chemical formulas and reactions, including precipitation reactions and
   acid-base reactions.
8. Perform quantitative chemical calculations using the principle of the molar mass,
   empirical formulas, percent composition, limiting reagent and theoretical yield.
9. Understand the general properties of energy, including enthalpy, and specific heat.
10. Understand and perform calculations based on solution chemistry, molarity,
    concentration, dilution solutions, and titration.
11. Demonstrate observational skills and data recording skills while performing laboratory
    experiments.

Prerequisite: Students are recommended to complete Math 9 or equivalent course before taking
CHE 108.

Textbooks and Supplies:
   978-0-07-340267-2 and 4th Edition only Connect Chemistry (ConnectPlus) for online
   access required.
2. Chemistry 108 Laboratory Manual, CSUDH Chemistry Department,
   1998-99 (maybe available on Blackboard by your respective lab instructor)
3. Laboratory Notebook by W.H. Freeman, quad ruled, duplicate carbonless

4. Your student ID is REQUIRED to take Exams and Quizzes

5. Scientific calculator, capable of doing exponential (exp or EE key) and logarithmic calculations (no programmable graphing calculators allowed on quizzes or exams). If you forget your calculator during an exam or quiz, you are not allowed to borrow another student calculator. It is your responsibility to bring the correct calculator, No cell phones, smart phone, Tablet, Ipads, etc… allowed, no exception!

6. Laboratory safety glasses/goggles (the lab will provide used safety goggles)

7. Ability to access and use BLACKBOARD (direct link is: http://toro.csudh.edu/webapps/portal/frameset.jsp) and the internet

8. Scantron Pack of 5, Form No. 882E for 3 Exams and Final Exam.

9. 12” clear, hard plastic ruler for lab use.

CHEM108 is a credit/no credit course and you must achieve 70% overall to receive credit for the class.

Exams: There will be 3 examinations given in the semester (30% Overall Grade) and 1 final examination (20% Overall Grade). There will be absolutely no curving or scaling of any exams. There maybe bonus questions on exam for additional points (this is at the discretion of the instructor).

   Exam 1: Chapters 1, 2, & 7
   Exam 2: Chapters 3, 4, & 8
   Exam 3: Chapters 5, 6, & 7

Course Structure and Conduct:
Style of the Course: Team Base Learning (TBL) and ALC:
Individual and Group Activities Requirement: Other than individual quizzes and exams, class participation IS HIGHLY REQUIRED. Some activities may be non-graded (up to the discretion of the instructor), but all worksheets will be graded assignments. Class participation grade is based upon your participation in in-class group activities and problem solving sessions. The instructor of record will compile groups. For some of these group activities advanced reading will be assigned along with the learning objectives. The readings will be essential to the success of your group exercises. The assessment of your readings will also include the On-Line homework questions to the reading. These assignments will be conducted within the framework of Team-Based Learning, which promotes student engagement and long-term retention of content. For further information regarding Team-Based Learning, one can refer to the following web-site: Team-Base Learning definition, and a 12 min video at https://vimeo.com/51713733. *These group assignments cannot be made-up*
Course Assessments and Grading in Percentages:

<table>
<thead>
<tr>
<th>Assessment</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Three exams*</td>
<td>30%</td>
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<tr>
<td>Quizzes*</td>
<td>15%</td>
</tr>
<tr>
<td>Group activity and On-Line Homework</td>
<td>15%</td>
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<tr>
<td>Laboratory</td>
<td>20%</td>
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<tr>
<td>Final</td>
<td>20%</td>
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*IMPORTANT NOTE: Any “excusable” absence scheduled quiz or exam MUST be substantiated by a WRITTEN document: a grade for “excused” missing work will be assigned as determined appropriate by the Instructor, on a case by case basis. **It is your responsibility** to let me know **1 week in advance** for scheduling a make up as long as a written document will be provided (you will be exempt unless it is an emergency). Otherwise, missed work = zero points! Contact me before the exam if a college-sanctioned activity conflicts with an exam or quiz date.

8 Individual Quizzes and 8 Team Quizzes@ 15% of overall grade:

There are 8 individual quizzes and 8 team quizzes scheduled for the semester. Students will have 30 minutes to complete the individual quiz in the beginning of class and then 30 minutes to take the group quiz afterward. So, it is important and your responsibility to be present and ready to take all quizzes. **(Check the schedule below to know when the quizzes will be given).** Theses quizzes will test basic skills as you read the book, online handout notes, and several lecture capture videos before through the topics/sections covered by chapter in lecture. There will be no make-up of any quizzes unless you have a substantiated written document and notified the instructor with enough time as mentioned above.

Group Activities/Worksheets (Average Team Score) and On-Line Homework @ 15% of overall grade:

Attendance will be recorded per in-class activity participation. This part of grade includes in-class group activates, worksheets, and on-line homework. There will be 1 Group Activity participation where you will get to be evaluated by your teammates near the end of the semester. It is important to participate and contribute to your team to be successful in this ALC. **The homework will be assigned on Blackboard using 4th Edition Connect Chemistry.** This is available with the purchase of the book or e-book which is to be purchased from the Bookstore or On-Line. The student access code card for Connect is the same Introduction of Chemistry, 4th Edition Only for Bauer, Birk, and Marks from McGraw-Hill publisher. **Homework will be set to a due date online to be completed and so Late homework will not be accepted at all!**

Laboratory@ 20% of overall grade:

You must be enrolled in a laboratory concurrently with the corresponding lecture. **Bring safety glasses/goggles and closed toed shoes to every lab section.** Please use your cell phones outside of the lab if it is an emergency. The lab consists of 20%, which will be on a separate lab syllabus provided by the instructor. You must be enrolled in a laboratory concurrently with the corresponding lecture.

One Final Exam @ 20% overall grade:

The final exam is a cumulative exam to include all material covered in the course of the semester and scheduled for **Thursday, May 18th 2017, from 8:30 am to 10:30 am. You must take the final exam to receive credit and Final Exam will not be return to you.**
Peer-Led Team Learning (PLTL):
As part of this TBL/ALC for CHE108, students will have 2 peer-led team learning students this SP2017 semester. They are Stephanie Lopez (slopez299@toromail.csudh.edu) and Nadia Hirbawi (nhirbawi1@toromail.csudh.edu). They will be present during lecture and will have PLTL hours at the Toro Learning Center as well. The days and times for their availability at the Toro Learning Center will be to the best of their ability based on a class survey to be conducted the first day of class.

Policy on due dates:
- Absolutely no make-up examinations or quizzes will be given unless the absence is due to illness or a college-sanctioned activity. A note from a doctor regarding the emergency is required for you to make up an assignment.
- Contact me at least one week before if a college-sanctioned activity conflicts with an exam or quiz date.
- Both exams and quizzes may include material from the textbook that is not explicitly discussed in lecture.
- The instructor cannot change the final examination time and date. Students wishing to apply for change of final examination time must do so by the end of the tenth week of classes. Forms are available in the Registrar's Office. Students must provide evidence of extenuating circumstances requiring the change of exam time.

Attendance requirements:
- Be PROMPT and regular in attendance.
- There will be recording of attendance. Attendance will be recorded by initialization of sign-in sheets that as a group up to the first 20 minutes of class.
- Students are required to conduct themselves in a professional manner during class.
- Cell phones, pagers and other electronic devices must be turned off during lecture.
- Late arrivals, side-discussions and other unprofessional behavior will be addressed at the instructor’s discretion.
- Students returning from absences are advised to copy lecture notes from students in their study group.
- Quizzes and Tests are “lecture-based” and may include questions on material covered only in Lecture (i.e. not discussed in the texts).
- Consistent late arrival may result in a lower grade; MORE THAN FOUR ABSENCES may result in being dropped from the class.

Course Material: The course materials for this section will be available on Blackboard. The lecture notes are Powerpoints and homework which you will be able to download and do on blackboard http://toro.csudh.edu/webapps/portal/frameset.jsp. Any other materials will also be available for you to download.

Extra Credit: There are no extra credit assignments except for those mentioned above. There is plenty of non-extra credit work to complete. For chemistry practice problems online that will help you out for this course, please visit http://proton.csudh.edu/homeworkcs/hwintrocsn7.html. Bonus problems may be given on the exams for extra credit.

Study Suggestions:
- Always study illustrations and skim the text before attending lectures.
• Do as many problems possible in addition to the assigned homework and do them without relying on solution keys. Using the available online help guide to assist your study when you have problem to understand the questions.
• Work additional problems and review for the exams with small study group members.
• Get help from the University Tutorial Services staff and your instructors in a timely manner.

Re-grading Policy: No re-grades unless there is a clear error in the adding of points. Each student should keep track of his/her points earned in class to that on blackboard for consistency when the instructor has assigned points.

Etiquette and Class Behavior:
It is important that all participants in a course be aware of proper behavior and respect one another. Remember that the University values diversity and encourages discourse. Be respectful of differences while engaging in discussions

1. Students are expected to be in class at the start of class every day, will stay for the whole class, participate, and do every class outside and in class assignment, and will attend every class and laboratory.

2. Students should not bring visitors to the class without special permission. Students cannot bring visitors to laboratory because of safety concerns.

3. Student will notify the instructor if they are going to miss class. This can be done in person, by e-mail, or by a phone call in an emergency.

4. Students will be prepared when they come to class and lab. Students are expected to read the chapter before coming to lecture, and read the experiment and complete the pre-lab exercises before coming to lab.

5. Students should do the assigned homework. It is best to do the homework the same day as the lecture. Students should plan to spend about 1.5 hours each day after class, and about 4 hours on the weekend studying for this class. Students who are unwilling to devote the time to studying will not pass the class. (This is a 5 unit class, so it must be assumed that homework will take at least 10 hours per week.)

6. Turn off all cell phones, pagers, and electronic devices when in class! Students will not disrupt the class with cell phones, late arrivals, excessive noise, eating and drinking, etc. Late arrivals, side-discussions and other unprofessional behavior will be addressed at the instructor’s discretion. Please be respectful of others.

7. Students will clean up their own messes.
8. Students will not cheat or plagiarize otherwise an “F” grade will be given and disciplinary action will be taken. This includes copying someone else’s lab report or lab data. Dishonest students will be reported to the administration for further disciplinary action. No programmable calculators or devices with alphanumeric text storage capacity will be allowed in the exams (including language translators and cell phones). Communicating with another student during the exam will result in a zero.

9. Students will ask questions in class, of other students, and of the instructor. Questions are encouraged as long as they relate to the lecture subject. Sincere questions are never stupid and you will not be ridiculed or degraded for asking them.

10. Students will notify the instructor of a medical condition or disability which may prevent the student from compliance with the course syllabus.

**Academic Integrity:**
The University adheres to a strict policy regarding cheating and plagiarism. These activities will not be tolerated in this class. Become familiar with the policy and what constitutes plagiarism (http://www4.csudh.edu/copyright/plagiarism/index). Any cheating or plagiarism will result in failing this class and a disciplinary review by the University. These actions may lead to probation, suspension, or expulsion.

**Students with Disabilities**
CSUDH adheres to the Americans with Disabilities Act with respect to providing reasonable accommodations for students with temporary or permanent disabilities. To receive accommodations, students with disabilities must register with Disabled Student Services. It is your responsibility to contact Student Disability Resource Center at WH D180 or call (310) 243-3660 or 310.243-2028. You can also learn more about the services provided by visiting the Student Disability Resource Center website.

To avoid any delay in the receipt of your accommodations, you should contact Student Disability Services as soon as possible. Please note that accommodations are not retroactive, and that accommodations based upon disability cannot be provided until you have presented your instructor with an accommodation letter from Student Disability Resource Center. Your cooperation is appreciated.
Lectures: T,Th,& F, 8:30 am - 9:40 am (WH 160A),
Laboratory: Meet in NSM C-315 (Please know your respective lab day and time)

**TENTATIVE LECTURE & TEST SCHEDULES AND ASSIGNMENTS**

Please note: This syllabus and schedule are subject to change***

<table>
<thead>
<tr>
<th>Week of Date</th>
<th>Chapters</th>
<th>Quiz &amp; Exam</th>
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<tbody>
<tr>
<td>1/23 T</td>
<td>Quick Introduction/Practice Intro Quiz 0</td>
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<td>Th</td>
<td>Team Building Activity</td>
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<td>F</td>
<td>Math review: significant figure, units, and conversion Quiz 1</td>
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<td>1/30 T</td>
<td>Unit 1 is Worksheet 1</td>
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<td>F</td>
<td>Continue Unit 1</td>
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<tr>
<td>2/6 T</td>
<td>Ch. 1: Matter and Energy Ch 2: Atom, Ion &amp; Periodic table Quiz 2</td>
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<td>Th</td>
<td>Unit 2 Atoms and Elements Activity</td>
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<td>F</td>
<td>Atoms and Elements Worksheet 2</td>
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<td>2/13 T</td>
<td>Continue Worksheet 2</td>
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<td>Th</td>
<td>Ch. 7: Electron structure of atom Quiz 3</td>
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<td>F</td>
<td>Unit 3: Problem Set</td>
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<td>2/20 T</td>
<td>Continue Unit 3 Problem Set Exam 1: Ch 1,2, &amp; 7 Exam 1</td>
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<td>Exam 1 discussion and short lecture</td>
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<td>2/27 T</td>
<td>Ch.3: Chemical compounds Ch 8.1-8.3: Chemical Bonding Quiz 4</td>
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<td>Th</td>
<td>Unit 4.1: Electrolyte solution Activity</td>
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<td>Unit 4.2: Polyatomic ions</td>
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<td>3/6 T</td>
<td>Chemical Nomenclature Worksheet 3 Quiz 5</td>
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<td>Continue Worksheet 3</td>
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<td>F</td>
<td>Ch 8.4: Shapes of Molecules Ch. 4: Chemical composition</td>
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<td>3/13 T</td>
<td>Unit 4.3: Lewis structure and Molecular shape</td>
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<td>VSEPR Theory and Molecular Shapes Worksheet 4</td>
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<td>F</td>
<td>Unit 4.4: Mole Concept Activity</td>
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<td>3/27 T</td>
<td>Spring Break, No Class or Lab</td>
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<td>Spring Break, No Class or Lab</td>
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<td>Continue Mole Concept activity</td>
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<td>Chemical Quantities Worksheet 5</td>
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<td>F</td>
<td>Continue Worksheet 5</td>
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<td>4/10</td>
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<td><strong>Exam 2: Ch 3, 4, &amp; 8</strong></td>
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<td>Exam 2 discussion and short lecture</td>
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<td>F</td>
<td>Ch. 5: Chemical reactions and equations</td>
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<td>Unit 5: Chemical reaction activity</td>
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<td>Continue Unit 5</td>
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<td>F</td>
<td>Chemical Reactions Worksheet 6</td>
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<td>4/24</td>
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<td>Continue Worksheet 6</td>
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<td>Th</td>
<td>Ch.6.1-6.5: Quantities in chemical reactions</td>
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<td>F</td>
<td>Unit 6: stoichiometry&amp; limiting reactants</td>
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<td>5/1</td>
<td>T</td>
<td>Continue Unit 6</td>
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<td>Th</td>
<td>Ch. 6.6-6.7 &amp; Ch. 10 : The liquid and solid states</td>
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<td>F</td>
<td>Unit 7 : Energy and Liquid &amp; Solid Sates</td>
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<td>5/8</td>
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<td>Continue Unit 7</td>
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<td>Unit 8 : Group Evaluation</td>
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<td>F</td>
<td><strong>Exam 3: Ch 5, 6, &amp; 10</strong></td>
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<td>5/15</td>
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<td>Exam 3 discussion and short lecture</td>
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<td>Th</td>
<td>Final Examination</td>
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<td>8:30-10:30am On Thursday 5/18</td>
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*** Students will be given ample notice if changes occur.***

**FINAL EXAM:**

Thursday, May 18th (ALL COURSE MATERIAL THAT IS CUMULATIVE)  
from 8:30 am - 10:30 am in WH 160A
108 Student Information

Please return page 9 & 10 to instructor by end of the first week of the SPRING 2017 semester

Name: _________________________________________________________________

Phone Number: _________________________________________________________

E-mail address: __________________________________________________________

Most recent chemistry course taken:

Course name _______________________________ When taken ________ _________

Most recent math course taken or the math course taking now

Course name _______________________________ When taken ________ _________

What is your degree/career objective?

Describe your previous college experience. (Where, number of units, major, etc.) (Please include any information that you would like to tell me about yourself.)

Ethnicity (Please Check and Continue page 10):

___ American Indian or Alaskan native  ___Asian Indian  ___Chinese
___Black, non-Hispanic, including African-American ___Central American  ___Cuban
___Mexican-American, Mexican, Chicano ___Cambodian  ___Filipino
___Guamanian  ___Hawaiian  ___Japanese
___Korean  ___Laotian  ___Puerto Rican
___ Samoan     ___ South American     ___ Thai
___ Vietnamese     ___ White     ___ Other Asian
_____ Other Latino, Spanish-Origin, Hispanic     ___ Other Southeast Asian
_____ Decline to State     ___ Other: Specify: __________________

Student Status (Please Check):

_____ Part-Time     _____ Day Student

_____ Full-Time     _____ Evening Student

Employment Status (Please Check):

_____ I don’t have a job     _____ I work: __________ Hours per week

Acknowledgement of Syllabus:

By signing and returning this sheet, I acknowledge that I have read the CSUDH Chemistry 108-80 (Course 21942) Syllabus for Spring 2017 and that I have understood all its contents.

_______________________________  ______________________________
Signature     Printed full name